

Appendix A

**SECTION 404(b)(1)
EVALUATION REPORT**

Appendix A

PRELIMINARY CLEAN WATER ACT, SECTION 404 (b) (1) EVALUATION

THE COAST OF FLORIDA EROSION AND STORM EFFECTS STUDY REGION III

1. PROJECT DESCRIPTION

a. Location. The study area is located along the Atlantic Ocean shoreline of Palm Beach, Broward, and Dade Counties, Florida.

b. General Description. The study involves investigating coastal processes along the state's coastline on a regional basis. This study involves only region III, which includes Palm Beach, Broward, and Dade Counties.

c. Authority and Purpose. The project was authorized by Section 104 of Public Law (PL) 98-360, and a resolution dated 8 August, 1984, by the Committee on Public Works and Transportation of the U. S. House of Representatives. The purpose of this study is to provide recommendations regarding modifications for existing federal shore protection and navigation projects.

d. General Description of Dredged or Fill Material.

(1) General Characteristics of Material. The available borrow material that is suitable for beach nourishment is predominantly fine to medium grained quartz sand with varying amounts of whole and broken shell, and an average silt content of less than 10 percent in Palm Beach County and Broward County, becoming predominantly shell fragments with lesser amounts of fine quartz sand in Dade County.

(2) Quantity of Material. The quantity of sand needed for beach renourishment is 26,253,000 cubic yards for Palm Beach County; 39,243,000 cubic yards for Broward County; and 11,936,000 cubic yards for Dade County. Quantities available from nearby offshore borrow sites are estimated at 655,025,947 cubic yards in Palm Beach County; 28,658,188 cubic yards in Broward County; and 3,500,000 cubic yards in Dade County.

(3) Source of Material. The beach-quality material will be dredged from sand deposits between two offshore reefs which run parallel to the shoreline, and from sand transfer plants located on the north side of various inlets. There is sufficient sand in Palm Beach County to satisfy the renourishment requirements. Offshore borrow deposits in Broward and Dade Counties will have to be supplemented. There are two possible sources of alternate renourishment sand; upland quartz sand quarries from Ortona, Florida near Lake Okeechobee, and sand from the Bahama Banks.

e. Description of the Proposed Discharge Sites.

(1) Location. The discharge sites are various segments of beach and near offshore berms that span from DNR monument 13 at Jupiter Inlet in Palm Beach County, to DNR monument 113 at Key Biscayne in Dade County.

(2) Size. Region III of the Coast of Florida has 93 miles of shoreline (beaches), of which 61 miles have been authorized as part of Federal shore protection projects.

(3) Type of Site. The project site is a sand beach.

(4) Type of Habitat. The habitat consists of a carbonate and quartz sand beach.

(5) Timing and Duration of Discharge. The period of construction for the various stretches of beach will be dependent on funding and authorization, but will stretch over several years due to the magnitude of the various segments of beach to be renourished and the number of berm segments to be constructed.

f. Description of Disposal Method. Disposal will be by discharge from a hopper or hydraulic pipeline dredge.

2. **FACTUAL DETERMINATION**

a. Physical Substrate Determination.

(1) Substrate Elevation and Slope. The top elevation of the design beach fill will be 7 feet (MLW) and the slope will be 1 on 20 from the berm toward the water, and then 1 on 30 to where it intersects the existing bottom.

(2) Sediment Type. The sediment is predominantly fine to medium grained quartz sand with varying amounts of shell.

(3) Dredge/Fill Material Movement. The fill material will be subject to erosion by waves with the net movement of fill material to the south.

(4) Physical Effects on Benthos. Some benthic organisms will be buried by the fill. Most organisms in this high wave energy ecosystem are adapted for existence in an area with considerable substrate movement, thus, most will be able to burrow up through the fill material. Recolonization will occur within a year.

b. Water circulation, Fluctuation and Salinity Determination.

(1) Water. The placement of fill on the beach will increase turbidity in the nearshore area. Because the immediate nearshore area is a high wave energy system and subject to naturally occurring elevated turbidity, increases due to the project will not be significant. Fill placement will not have long-term or significant impacts, if any, on salinity, water chemistry, clarity, color, odor, taste, dissolved gas levels, nutrients or eutrophication.

(2) Current Patterns and Circulation. Currents in the project area are both tidal and longshore. Net movement of water due to the longshore current is from the north to the south. Placement of the fill on the beach will have no effect on the currents.

(3) Normal Water Level Fluctuations and Salinity Gradients. Tides in the project area are semi-diurnal. The mean tidal range at the Fort Pierce Inlet is 3.0 feet. Salinity is that of ocean water. Fill placement will not affect normal tide fluctuations or salinity.

c. Suspended Particulate/Turbidity Determinations.

(1) Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. There will be a temporary increase in turbidity levels in the project area during discharge. Turbidity will be short-term and localized and no significant adverse impacts are expected. State standards for turbidity will not be exceeded.

(2) Effects on the Chemical and Physical Properties of the Water Column.

(a) Light Penetration. Light penetration will decrease during discharge in the immediate area where sand is being deposited on the beach. This effect will be temporary and will have no adverse impact on the environment.

(b) Dissolved Oxygen. Dissolved oxygen levels will not be altered by this project.

(c) Toxic Metals, Organics, and Pathogens. No toxic metals, organics, or pathogens will be released by the project.

(d) Aesthetics. Aesthetic quality will be reduced during that period when work is occurring. There will be long term increase in aesthetic quality of the beach once the work is completed.

(3) Effects on Biota.

(a) Primary Productivity and Photosynthesis. Primary productivity is not a recognized, significant phenomenon in the surf zone, where a temporarily increased level of suspended particulates will occur. There will be no effect on the near shore productivity as a result of the proposed beach disposal.

(b) Suspension/Filter Feeders. There will be no long-term adverse impact to suspension/filter feeders.

(c) Sight Feeders. There will be no long-term adverse impact to sight feeders.

d. Contaminant Determinations. Deposited fill material will not introduce, relocate, or increase contaminants.

e. Aquatic Ecosystem and Organism Determinations. The fill material that will be placed on the beach will consist of quartz and carbonate sand that is similar enough to the existing substrate so that no impacts are expected.

(1) Endangered and Threatened Species. There will be no significant impacts on any threatened or endangered species or on designated Critical Habitat of any threatened or endangered species. Sea turtle nesting may occur in the project area during the time dredging and beach disposal takes place. If construction takes place during the nesting season, a nest relocation program will be implemented as recommended by the USFWS. Manatee protection measures as specified by the USFWS will be followed to minimize the potential for harm.

(2) Hardbottom Habitat. Beach nourishment activities within the study area would cover approximately 31, 25, and 5 acres of nearshore hardbottom habitat in Palm Beach, Broward, and Dade counties respectively.

f. Proposed Disposal Site Determinations.

(1) Mixing Zone Determination. The fill material will not cause unacceptable changes in the mixing zone specified in the Water Quality Certification in relation to: depth, current velocity, direction and variability, degree of turbulence, stratification, or ambient concentrations of constituents.

(2) Determination of Compliance with Applicable Water Quality Standards. Because of the inert nature of the fill material, State water quality standards will not be violated.

(3) Potential Effects on Human Use Characteristics.

(a) Municipal and Private Water Supplies. No municipal or private water supplies will be impacted by the implementation of the project.

(b) Recreational and Commercial Fisheries. Recreational and commercial fisheries will not be impacted by the disposal of dredged material on the beach.

(c) Water Related Recreation. Water related recreation will be preserved and enhanced by the nourishment of the beach.

(d) Aesthetics. The stabilization of an eroding beach will improve aesthetics.

(e) Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. The COFS will directly affect the J.U. Lloyd State Park. A 2.3 mile section of beach between R-86 and R-98 has already been restored through nourishment, with a periodic renourishment interval of 6 years. Biological monitoring of the J.U. Lloyd Beach Renourishment of 1989 reveal that although major faunal shifts have occurred in the softbottoms of the toe of fill site of the J. U. Lloyd State Park, no pattern of hardground organism abundance relative to dredge or fill activities was observed (Dodge *et al.*, 1991). Coordination with the Ranger of the J.U. Lloyd State Park reveal that beach nourishment was badly needed to combat erosion near the parking areas (Leve, 1995). Therefore, significant direct or

indirect adverse impacts associated with the proposed combination of alternatives are not expected. No other State Park or aquatic preserves would be directly or indirectly impacted by COFS.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. There will be no cumulative impacts that result in a major impairment of water quality of the existing aquatic ecosystem as a result of the placement of fill at the project site. Subsequent maintenance dredging of beach-quality material from the entrance channel will occur approximately every other year. The impact of disposing material on the beach during these dredging cycles will be minor.

h. Secondary Effects on the Aquatic Ecosystem. No adverse secondary effects of the placement of the fill material are anticipated.

3. FINDINGS OF COMPLIANCE OR NON-COMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE.

a. No significant adaptations of the guidelines were made relative to this evaluation.

b. No practicable alternative exists which meets the study objectives that does not involve discharge of fill into waters of the United States.

c. The discharge of fill materials will not cause or contribute to, after consideration of disposal site dilution and dispersion, violations of any applicable State water quality standards for Class III waters. The discharge operation will not violate the toxic Effluent Standards of Section 307 of the Clean Water Act.

d. The disposal of dredged material on the beach will not jeopardize the continued existence of any species listed as threatened or endangered under the Endangered Species Act, or result in the likelihood of destruction or adverse modification of any Critical Habitat as specified by the Act.

e. The placement of fill material will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreational and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. Life stages of aquatic species and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values will not occur.

f. On the basis of the guidelines, the proposed disposal site for the discharge of dredged material is specified as complying with the requirements of these guidelines.

g. The placement of fill material complies with the specified protection measures for marine sanctuaries designated by the Marine Protection, Research, and Sanctuaries Act of 1972. No steps were necessary to minimize potential impacts of the discharge on aquatic resources.

Appendix B

**FLORIDA COASTAL ZONE
MANAGEMENT PROGRAM,
FEDERAL CONSISTENCY EVALUATION**

Appendix B

FLORIDA COASTAL ZONE MANAGEMENT PROGRAM FEDERAL CONSISTENCY EVALUATION

BEACH RENOURISHMENT THE COAST OF FLORIDA EROSION AND STORM EFFECTS STUDY REGION III

1. CHAPTER 161, BEACH AND SHORE PRESERVATION

The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes. Also, the project must be consistent with any beach and inlet management plans.

RESPONSE: Section 404 (r) of the Clean Water Act states that any discharge resulting from a federally approved construction project authorized by Congress is not subject to 404 regulation, or any State program approved under Section 404 of the Clean Water Act, if information on the effects of the discharge are included in the environmental impact statement (EIS) of the project, and if the EIS has been submitted prior to actual discharge and prior to either authorization or appropriation of construction. The proposed project, as discussed in Beach Erosion Control Projects Environmental Impact Statements for Palm Beach and Dade counties, and the Environmental Assessment for Broward County, meets all criteria for an exemption from regulation by the State of Florida under the provisions of Section 404 (r) of the Clean Water Act (PL 92-500, as amended). However, all attempts to obtain a State Water Quality Certificate will be made.

2. CHAPTERS 186 AND 187, STATE AND REGIONAL PLANNING

These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State's future. Its purpose is to define, in a broad sense, goals and policies that provide decisions-makers directions for the future, and provide long-range guidance for an orderly social, economic, and physical growth.

RESPONSE: The proposed project has been coordinated with the agencies of the State of Florida. Issues raised by the State have been addressed, and studies requested have been performed and discussed in Supplements to the Beach Erosion Control Projects Environmental Impact Statements for Palm Beach and Dade counties, and the Environmental Assessment for Broward County.

3. CHAPTER 252, DISASTER PREPARATION, RESPONSE AND MITIGATION

This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.

RESPONSE: The proposed disposal of sand on the various reaches of beaches will help protect upland development from erosion and reduce damage resulting from storms. Therefore, this project would be consistent with the efforts of Division of Emergency Management.

4. CHAPTER 253, STATE LANDS

This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

RESPONSE: The loss of any of the above resources that are deemed significant will be mitigated.

6. CHAPTER 258, STATE PARKS AND AQUATIC PRESERVES

This chapter authorizes the State to manage State parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

RESPONSE: The COFS will directly affect the J.U. Lloyd State Park. A 2.3 mile section of beach between R-86 and R-98 has already been restored through nourishment, with a periodic renourishment interval of 6 years. Biological monitoring of the J.U. Lloyd Beach Renourishment of 1989 reveal that although major faunal shifts have occurred in the softbottoms of the toe of fill site of the J. U. Lloyd State Park, no pattern of hardground organism abundance relative to dredge or fill activities was observed (Dodge *et al.*, 1991). Coordination with the Ranger of the J.U. Lloyd State Park reveal that beach nourishment was badly needed to combat erosion near the parking areas (Leve, 1995). Therefore, significant direct or indirect adverse impacts associated with the proposed combination of alternatives are not expected. No other State Park or aquatic preserves would be directly or indirectly impacted by COFS.

7. CHAPTER 267, HISTORIC PRESERVATION

This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

RESPONSE: The COFS has been coordinated with the Florida State Historic Preservation Officer (SHPO). Archival research and magnetometer surveys of borrow areas have been conducted for projects which have been constructed and for some proposed projects. Where potentially significant magnetic anomalies have been identified in the borrow areas, buffer zones have been established to protect the anomalies from the effects of borrow area dredging. On those projects, the SHPO concurred with the District's determination that significant cultural resources would not be adversely affected if anomalies were protected by buffer zones. For borrow areas which have not been previously used or subjected to a cultural resource survey, the District will conduct a magnetometer survey and will coordinate the results of those surveys with the SHPO. The COFS is consistent with this chapter.

8. CHAPTER 288, ECONOMIC DEVELOPMENT AND TOURISM

This chapter directs the State to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

RESPONSE: The proposed project would provide a net economic benefit to the local and regional economy. The project will be compatible with economic diversification and tourism for the area, and therefore would be consistent with the goals of this chapter.

9. CHAPTERS 334 AND 334, PUBLIC TRANSPORTATION

This chapter authorizes the planning and development of a safe, balanced and efficient transportation system.

RESPONSE: No public transportation systems would be impacted by this project.

10. CHAPTER 370, SALTWATER LIVING RESOURCES

This chapter directs the State to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the State engaged in the taking of such resources within or without State waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each species; and, to conduct scientific and economic studies and research.

RESPONSE: The project will temporarily alter some habitats utilized by marine, crustacean, shell, and finfish fishery resources. The beach nourishment will create a larger, more suitable area for sea turtle nesting. Manatee protection measures will be implemented to ensure no adverse effects. The loss of seagrass and non-vegetated soft-bottom habitats will be mitigated. Based on the overall impacts of the project, the project appears to be consistent with the goals of this chapter.

11. CHAPTER 372, LIVING LAND AND FRESHWATER RESOURCES

This chapter establishes the Game and Freshwater Fish Commission, and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

RESPONSE: The proposed project has been coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for compliance with Section 7 of the Endangered Species Act. The potential effects of this project on threatened or endangered species is discussed in the Beach Erosion Control Projects Environmental Statements for Palm Beach and Dade counties, and the Environmental Assessment for Dade County. There will be some significant displacement of biological communities in some locations. Locations where significant habitat is lost or altered will be mitigated. Therefore, the project would comply with the goals of this chapter.

12. CHAPTER 373, WATER RESOURCES

This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.

RESPONSE: This project does not involve water resources as described by this chapter.

13. CHAPTER 376, POLLUTANT SPILL PREVENTION AND CONTROL

This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

RESPONSE: This project does not involve the transportation or discharging of pollutants.

14. CHAPTER 377, OIL AND GAS EXPLORATION AND PRODUCTION

This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.

RESPONSE: This project does not involve the exploration, drilling or production of gas, oil, or petroleum products, and therefore does not apply.

15. CHAPTER 380, ENVIRONMENTAL LAND AND WATER MANAGEMENT

This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.

RESPONSE: The proposed project will provide a net economic benefit to the local and regional economy. Beach disposal of sand on the various reaches of beach may enhance tourism, and provide protection of beachfront properties from wave action and storm surges. The proposed project will be consistent with the goals of this chapter.

16. CHAPTER 388, ARTHROPOD CONTROL

This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes or other pest arthropods within the state.

RESPONSE: The project would not further the propagation of mosquitoes or other pest arthropods.

17. CHAPTER 403, ENVIRONMENTAL CONTROL

This chapter authorizes the regulation of pollution of the air and waters of the state by the DER.

RESPONSE: The Federal Section 404 (r) exemption would apply to all aspects of the project. FDER has provided input into the preparation of the EISs and the EA. These documents discuss potential impacts of the project on water quality. Therefore, the project will comply with the intent of this chapter.

18. CHAPTER 582, SOIL AND WATER CONSERVATION

This chapter establishes policy for the conservation of the State soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both on-site or in adjoining properties affected by the project. Particular attention will be given to projects on or near agricultural lands.

RESPONSE: The proposed project is not located near or on agricultural lands; therefore, this chapter does not apply.

Appendix C

SCOPING LETTER AND RESPONSES



STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS

2740 CENTERVIEW DRIVE • TALLAHASSEE, FLORIDA 32399-2100

LAWTON CHILES
Governor

LINDA LOOMIS SHELLEY
Secretary

December 20, 1994

Mr. A. J. Salem
Chief, Planning Division
Department of the Army
Corps of Engineers
Jacksonville District
Post Office Box 4970
Jacksonville, Florida 32232-0019

RE: Beach Erosion Control Projects - Scoping Letter for
Draft Environmental Impact Statement - Region III,
Coast of Florida Erosion and Storm Effects Study -
Florida
SAI: FL9411141142C

Dear Mr. Salem:

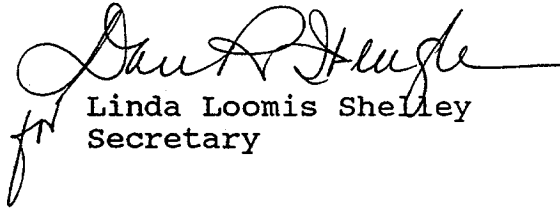
The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Governor's Executive Order 93-194, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the above-referenced project.

The Department of State (DOS) notes that numerous prehistoric and historic sites are located within the region included in the above-referenced study. The nature and location of the proposed activities may affect these significant archaeological or historic sites. Therefore, the applicant is required to provide the DOS with detailed information, as specified by DOS, when the individual projects are identified. The applicant is encouraged to continue coordination with the DOS and to fully comply with any conditions stipulated by the DOS, following its review of future project proposals. Please refer to the enclosed DOS comments.

Mr. A. J. Salem
December 20, 1994
Page Two

Although the applicant did not provide a federal consistency determination in accordance with the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and its implementing regulations, 15 CFR 930, the state has determined that, at this stage, the above-referenced study is consistent with the Florida Coastal Management Program (FCMP). All subsequent environmental documents prepared for this project will be reviewed to determine the project's continued consistency with the FCMP. Such documents must be submitted to the Florida State Clearinghouse for interagency review. The state's continued concurrence with the project will be based, in part, on the adequate resolution of the issues identified during earlier reviews.

Very truly yours,


for Linda Loomis Shelley
Secretary

LLS/rk

Enclosures

cc: George Percy, Department of State

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DEC 15 1994

FLORIDA DEPARTMENT OF STATE

IGA

Jim Smith
Secretary of State
DIVISION OF HISTORICAL RESOURCES
R.A. Gray Building
800 South Broward
Tallahassee, Florida 32399-0260
Director's Office Telecopier Number (FAX)
(904) 488-1480 (904) 488-3333

December 14, 1994

Ms. Janice L. Hatter, Director
State Clearinghouse
Executive Office of the Governor
Room 1603, The Capitol
Tallahassee, FL 32399-0001

In Reply Refer To:
Laura A. Kammerer
Historic Preservationist
Supervisor
(904) 487-2333
Project File No. 944111-

RE: Cultural Resource Assessment Request
SAL# FL9411141142C
US Army Corps of Engineers
Region III of the Coast of Florida Erosion and Storm Effects
Study - Draft Environmental Impact Statement
Broward, Dade and Palm Beach Counties, Florida

Dear Ms. Hatter:

This office reviewed this project for the Corps of Engineers and sent a letter December 8, 1994. We had the following comments:

The study region contains hundreds of historic shipwrecks. They are most frequently located in 20 feet or less of water, or in association with the first and second reef lines along the southeastern coast of Florida. We suggested that the Corps contact several local agencies regarding local shipwreck information and provided a contact person and telephone number.

There are also hundreds of prehistoric and historic archaeological sites in this coastal region. A current Florida Master Site File printout of properties in Broward, Dade and Palm Beach Counties listed, or eligible for listing in the National Register of Historic Places was provided to the Corps.

The following proposed modifications for existing shore protection and navigation projects are likely to affect historic shipwrecks: sand bypassing at inlets using conventional dredging, construction of groins and/or offshore breakwaters, construction of sand traps and offshore borrowing. In addition, the following types of activities are likely to affect upland prehistoric and historic properties: dune construction and upland sand borrow sources.

Archaeological Research
(904) 487-2299

Florida Folklife Programs
(904) 397-2192

Historic Preservation
(904) 487-2333

Museum of Florida History
(904) 488-1484

Ms. Janice L. Hatter
December 14, 1994
Page 2

As with all of the Corps shore protection and navigation projects, the above activities may have to be coordinated on a case-by-case basis with this office. We will be working with the Corps and providing more specific concerns and information regarding important cultural resources as projects are developed and implemented.

The project is consistent with the historic preservation aspects of Florida's Coastal Management Program. If you have any questions concerning our comments, please do not hesitate to contact us.

Sincerely,

Laura R. Hammer

George W. Percy
George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Klk

xc: Jasmin Raffington, FCMP-DCA

COUNTY: BROWARD

DATE: 11/18/94

COMMENT DUE DATE: 12/02/94

SAI#: ~~FE9411141142C~~

STATE AGENCIES

<input type="checkbox"/>	Agriculture
<input type="checkbox"/>	Board of Regents
<input type="checkbox"/>	Commerce
<input checked="" type="checkbox"/>	Community Affairs
<input type="checkbox"/>	Education
<input checked="" type="checkbox"/>	Environmental Protection
<input checked="" type="checkbox"/>	Game & Fish Comm
<input type="checkbox"/>	Health & Rehab Srv
<input type="checkbox"/>	Highway Safety
<input type="checkbox"/>	Labor & Employmnt
<input type="checkbox"/>	Law Enforcement
<input checked="" type="checkbox"/>	Marine Fish Comm
<input type="checkbox"/>	State Library
<input checked="" type="checkbox"/>	State
<input checked="" type="checkbox"/>	Transportation
<input type="checkbox"/>	Trans Disad. Comm
<input type="checkbox"/>	DEP District

LOCAL/OTHER

<input type="checkbox"/>	NWFWMD
<input checked="" type="checkbox"/>	SFWMD
<input type="checkbox"/>	SWFWMD
<input type="checkbox"/>	SJRWMD
<input type="checkbox"/>	SRWMD

OPB POLICY UNITS

<input type="checkbox"/>	Public Safety
<input type="checkbox"/>	Education
<input checked="" type="checkbox"/>	Environment/C & ED
<input type="checkbox"/>	General Government
<input type="checkbox"/>	Health & Human Srv
<input type="checkbox"/>	Revenue & Eco. Ana
<input type="checkbox"/>	SCH
<input checked="" type="checkbox"/>	SCH/CON

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NOV 21 1994

OFFICE OF
Intergovernmental Programs

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- ☐ Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- ☒ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- ☐ Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- ☐ Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

FOR CONSISTENCY PROJECTS, SEE REVERSE SIDE FOR INSTRUCTIONS.

To: State Clearinghouse
Executive Office of the Governor -OPB
Room 1603, The Capitol
Tallahassee, FL. 32399-0001
(904) 488-8114 (SC 278-8114)

Florida Coastal Management Director
Department of Community Affairs
Suite 305, Rhyne Building
Tallahassee, FL. 32399-2100
(904) 922-5438 (SC 292-5438)

EO. 12372/NEPA

Federal Consistency

- ☐ No Comment
- ☐ Comments Attached
- ☒ Not Applicable

- ☐ No Comment/Consistent
- ☐ Consistent/Comments Attached
- ☐ Inconsistent/Comments Attached
- ☒ Not Applicable

DEP is co-sponsor

From:

Division/Bureau: Department of Environmental Protection

Reviewer: Office of Intergovernmental Programs

Date: Nov. 23, 1994

Reviewed: Carliane D. Johnson

Date: Nov. 23, 1994

COUNTY: BROWARD

DATE: 11/18/94

COMMENT DUE DATE: 12/02/94

SAI#: FL9411141142C

STATE AGENCIES

☐ Agriculture
☐ Board of Regents
☐ Commerce
☒ Community Affairs
☐ Education
☒ Environmental Protection
☒ Game & Fish Comm
☐ Health & Rehab Srv
☐ Highway Safety
☐ Labor & Employmnt
☐ Law Enforcement
☒ Marine Fish Comm
☐ State Library
☒ State
☒ Transportation
☐ Trans Disad. Comm
☐ DEP District

LOCAL/OTHER

☐ NFWFMD
☒ SFWMD
☐ SWFWMD
☐ SJRWMD
☐ SRWMD

OPB POLICY UNITS

☐ Public Safety
☐ Education
☒ Environment/C & ED
☐ General Government
☐ Health & Human Srv
☐ Revenue & Eco. Ana
☐ SCH
☒ SCH/CON

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NOV 22 1994

MARINE FISHERIES
COMMISSION

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

☐ Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.

☒ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.

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FOR CONSISTENCY PROJECTS, SEE REVERSE SIDE FOR INSTRUCTIONS.

To: State Clearinghouse

EO. 12372/NEPA

Federal Consistency

Executive Office of the Governor -OPB
Room 1603, The Capitol
Tallahassee, FL. 32399-0001
(904) 488-8114 (SC 278-8114)

☐ No Comment
☐ Comments Attached
☐ Not Applicable

☐ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☒ Not Applicable

Florida Coastal Management Director
Department of Community Affairs
Suite 305, Rhyne Building
Tallahassee, FL. 32399-2100
(904) 922-5438 (SC 292-5438)

From:

Division/Bureau

Reviewer:

Date:

Marine Fisheries Commission
Raf Williams
11-28-94

COUNTY: BROWARD

DATE: 11/18/94

COMMENT DUE DATE: 12/02/94

SAI #: FL9411141142C

STATE AGENCIES

—	Agriculture
—	Board of Regents
—	Commerce
<input checked="" type="checkbox"/>	Community Affairs
—	Education
<input checked="" type="checkbox"/>	Environmental Protection
<input checked="" type="checkbox"/>	Game & Fish Comm
—	Health & Rehab Srv
—	Highway Safety
—	Labor & Employment
—	Law Enforcement
<input checked="" type="checkbox"/>	Marine Fish Comm
—	State Library
<input checked="" type="checkbox"/>	State
<input checked="" type="checkbox"/>	Transportation
—	Trans Disad. Comm
—	DEP District

LOCAL/OTHER

—	NWFWMD
<input checked="" type="checkbox"/>	SFWMD
—	SWFWMD
—	SJRWMD
—	SRWMD

OPB POLICY UNITS

—	Public Safety
—	Education
<input checked="" type="checkbox"/>	Environment/C & ED
—	General Government
—	Health & Human Srv
—	Revenue & Eco. Ana
—	SCH
<input checked="" type="checkbox"/>	SCH/CON

RECEIVED
NOV 29 1994

Florida Coastal
Management Program

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NOV 21 1994
CENTRAL OFFICE FDOT
ICAR COORDINATOR

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- ☒ Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

FOR CONSISTENCY PROJECTS, SEE REVERSE SIDE FOR INSTRUCTIONS.

To: State Clearinghouse

Executive Office of the Governor -OPB
Room 1603, The Capitol
Tallahassee, FL. 32399-0001
(904) 488-8114 (SC 278-8114)

Florida Coastal Management Director
Department of Community Affairs
Suite 305, Rhyne Building
Tallahassee, FL. 32399-2100
(904) 922-5438 (SC 292-5438)

EO. 12372/NEPA

- ☒ No Comment
- ☐ Comments Attached
- ☐ Not Applicable

Federal Consistency

- ☒ No Comment/Consistent
- ☐ Consistent/Comments Attached
- ☐ Inconsistent/Comments Attached
- ☐ Not Applicable

From:

Division/Bureau: Environmental Management

Reviewer: Gary Erick

Date: 11/28/94

INTERGOVERNMENTAL COORDINATION AND REVIEW
ROUTING SHEET

DATE: 11/22/94

TO: Norm Feder, D1; Aage Schroder, D2; Marvin Stufey, D3; ~~John~~ D4; Jimi Kimb
D5; Servando Parapar, D6; David Twiddy, D7; B. Ashbaker, Leroy Irwin, Hebert, WIS

SAL: FL 94111 411 420

Application Transmitted: Atlantic Coastline

Date Response Due to the Clearinghouse: 12/02/94

Please review and comment regarding the attached application in accordance with Department Procedure 525-010-205-b. A letter of response to the Director of the Clearinghouse and this routing sheet should be completed and returned as directed in the procedure.

The following criteria, as appropriate to the project, should be used to evaluate the application and develop your comments:

- Florida Transportation Plan
- Adopted Work Program
- Transportation Improvement Plan (TIP)
- Right of Way Preservation and Advanced Acquisition
- Transit Development Program
- MPO Comprehensive Transportation Plan and 20 year Transportation Plan
- Florida Rail System Plan
- Florida Aviation System Plan
- Local Airport Master Plan
- Florida Seaport Mission Plan
- Environment Commitments
- Unified Planning Work Program
- Level of Service
- Access Management

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NOV 23 1994

Transportation
Management Office

If comments are warranted based on other criteria, they should be included.

Work Program Item Number: _____ (if applicable).

RONNICE S. VAUGHN

Central Office ICAR Coordinator - MS 724

TYPE: General Aviation Rail Seaports
Transit

11/22/94

South
Florida
Regional
Planning
Council



December 14, 1994

Mr. A. J. Salem
Department of the Army
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

RE: SFRPC #94-1121, Request for comments on alternatives to beach erosion to be included in *The Coast of Florida Erosion and Storm Effects Study* by the Army Corps of Engineers, Palm Beach, Broward and Dade Counties.

Dear Mr. Salem:

We have reviewed the alternative described in your request for information in reference to the above study and have the following comments.

The decision to study the processes of shoreline erosion in a comprehensive manner is generally consistent with the mission of the South Florida Regional Planning Council, and staff supports this effort.

The agreed upon alternative course(s) of action to prevent or counteract erosion should be consistent with the goals and policies of the *Regional Plan for South Florida*, specifically the following:

- GOAL 9.1** To reduce erosion rates and eliminate dune destruction in the Region and, where feasible, continue to rebuild destroyed dunes by 1995.
- Policy 9.1.1** All construction within the coastal zone will, at a minimum, be limited by the state coastal construction control lines and all other applicable state and local laws.
- Policy 9.1.2** Discourage all development in the Coastal High-Hazard Area (as delineated and adopted in each local government comprehensive plan) that will be subsidized through public moneys such as disaster insurance or infrastructure.
- Policy 9.1.3** Discourage all development seaward of the Coastal Building Zone (defined in Chapter 161, F.S.) that is shown to have significant adverse impacts on the stability of the shoreline or is subject to severe erosion.
- Policy 9.1.5** To resolve beach erosion problems caused by inlets, local governments, inlet management districts and port authorities should coordinate with the Florida Department of Natural Resources to ensure that inlet management plans incorporate systems which restore to downdrift beaches, on an annual basis, an amount of beach quality sand equivalent to the amount directly prevented from reaching the downdrift beach by the inlet and its associated jetties.

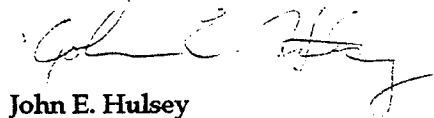
- Policy 9.1.6** Dune walkovers will be built, where practical, at all beach access points, public and private, to prevent destruction of the dune system.
- Policy 9.1.7** Where feasible, create buffer zones between landward development and the dune system so as to prevent further erosion of the dune system. This area will be planted in the native vegetation necessary for stabilization of the dune.
- Policy 9.1.8** Dune revegetation or other forms of mitigation acceptable to the permitting agency will be used for necessary seawall construction.
- Policy 9.1.9** Non-structural beach protection will be the preferred form of erosion control in the Region.
- Policy 9.1.10** Encourage replacement of bulkheads and seawalls with non-structural forms of shoreline stabilization.
- Policy 9.1.11** Areas will be designated as suitable for renourishment and rebuilding of lost dunes by local government. Designation should include consideration of the following:
- a) potential impact on marine resources;
 - b) cost to public; and
 - c) life expectancy of stabilization project.
- Policy 9.1.12** Permit bulkheading or construction of other hard shoreline stabilization structures in the coastal water bodies for the purpose of erosion control only if:
- a) the construction is necessary to maintain navigational channels; or
 - b) there is severe loss of property due to erosion control structures on adjoining property; or
 - c) not stabilizing would mean significant loss to the property owners; or
 - d) this activity provides habitat enhancement; or
 - e) not stabilizing causes water quality problems due to turbidity; or
 - f) a sloped, vegetated revetment system is unlikely to provide adequate stabilization; or
 - g) the Department of Natural Resources approves the project if it is seaward of the coastal construction control line.
- GOAL 9.3** To reduce discharges which degrade coastal water quality in the Region by 1995.
- Policy 9.3.2** Turbidity control measures will be utilized in all phases of any construction in the coastal zone to prevent applicable violation of local, state, and federal water quality standards.

- Policy 9.3.3** The cumulative effects of construction in the coastal areas will be considered in the permitting processes, as well as individual effects.
- Policy 9.3.4** The biological and hydrological functions of coastal wetlands and deep water habitats lost to development will be mitigated with creation of new habitat, restoration or enhancement of degraded habitats.
- GOAL 9.6** To improve productivity of fisheries habitat by 1995.
- Policy 9.6.5** Improve degraded habitats to a functional and productive state.
- Policy 9.6.6** Activities which would degrade or eliminate any type of approved shellfish harvesting area classification shall be prohibited.
- GOAL 9.7** Beginning now, prohibit destruction of coral habitat and achieve a no net loss of coral habitat.
- Policy 9.7.2** Prohibit dredging of sand for beach renourishment projects and off-shore drilling for oil or gas in the vicinity of coral.
- Policy 9.7.5** Review development and marine activities with regard to impact on near-shore bottom resources, including coral habitat, and condition their approval upon no net loss of historical coral habitat.
- Policy 9.7.6** If mitigation is appropriate, it should be required for all lost coral habitat and it should consist of the creation of new habitat or enhancement of existing habitat similar to that which has been lost.
- Policy 9.7.9** Federal, state, regional and local agencies should coordinate the development of resource protection plans and reviews of proposed development which may affect marine sanctuaries.
- GOAL 9.8** Eliminate the net loss of native coastal vegetation in the Region, and where possible, restore destroyed habitat by the year 2000.
- Policy 9.8.1** Activity causing adverse effects to the seagrass population of the Region will not be allowed unless:
- a) it is necessary to maintain existing navigational channels; and
 - b) the activity is in the public interest and no other alternative exists.
- Policy 9.8.2** Mangroves may be removed from the coastal area of the Region only if doing so is in the public interest and no other alternative exists.
- Policy 9.8.3** If mitigation is appropriate, it should be required for all lost habitat, and will be in the creation of new habitat or enhancement of existing habitat of the same or similar species in a ratio of at least twice the size of the natural area lost, and as determined feasible for the specific habitat.
- Policy 9.8.4** Areas for restoration and mitigation will be identified by the applicable governmental agency.

Mr. A. J. Salem
December 14, 1994
Page 4

Thank you for the opportunity to comment. We would appreciate being kept informed of the progress of this study.

Sincerely,

A handwritten signature in dark ink, appearing to read "John E. Hulsey", with a stylized flourish at the end.

John E. Hulsey
Regional Planner

JEH/kc

TOWN OF MANALAPAN
PALM BEACH COUNTY
600 SOUTH OCEAN BOULEVARD
MANALAPAN, FLORIDA 33462-3398
Telephone (407) 585-9477
Fax 407-585-9498

December 8, 1994

Department of the Army
Jacksonville District Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

Attention Planning Division, Environmental Branch

Subject : The Coast of Florida Erosion and Storm Effects Study

To Whom It May Concern:

In response to your letter dated November 8, 1994, the Town of Manalapan submits the following information, data and comments.

The Town of Manalapan is located in Region III of the study area between DEP markers R-137 and R-151. The south boundary of the Town is adjacent to the South Lake Worth Inlet and the associated sand transfer pump on the north side of the Inlet.

All of the issues referenced in your letter have caused the Town grave concerns. We have expressed concern in the past and continue to question beach renourishment projects that include beach fill and continued inlet bypass sand pumping that fails to address the impact to the beaches north of the inlet.

We have addressed many of the issues, as outlined in your letter of November 8, 1994, with our reply to the letter from your Department dated December 7, 1993 concerning the Ocean Ridge segment of the Palm Beach County Shore Protection Project. Our reply dated December 30, 1993 should be in your Department file.

The Town believes that with the historical data available - the sand bypass pump at the South Lake Worth Inlet is the oldest inlet bypass pump in the State - the damage to the beaches north of the pump has been extensive and has not been fully evaluated. The Town's Engineering Department has accumulated approximately 5000 photographs starting from the construction period of the Inlet to the present time. Since 1965 photographic monitoring has occurred from various fixed locations from an area 5 miles north of the Inlet to 6000 feet south of the Inlet. The photographic documentation we have made available to the Corps should be taken into consideration before your study is completed.

During our research, one important problem has been the accuracy of available data. We have found most of the DEP data checked reasonably well with known and reliable local information with exception, that being the 1928 work taken from an aerial survey. For example, we noted that the DEP marker R-144 value is too far west by 102.5 feet, at marker R-145 it is too far west by 120.4 feet.

Also, we found somewhat less error in the Town of Ocean Ridge where the values were too far to the east. It appears that, at least in this area, the aerial survey is useless or that the values taken for the DEP data report were poorly done.

We have attached a brief historical outline of the South Lake Worth Inlet Sand Pump and recommendations for modifications to the pump and the Inlet that we hope will merit your consideration.

Sincerely,



Charles H. Helm
Town Manager

cc:

Honorable G. K. Shortz, Mayor
Honorable Peter Blum, Vice Mayor
Honorable William J. Graham, Jr., Mayor Pro Tem
Honorable James C. Grey, Commissioner
Honorable Robert E. Parlette, Jr., Commissioner
Honorable Edward I. Singer, Commissioner
Mr. James McC. Wearn, Town Attorney

SLWI SAND PUMP

The SLWI was opened in 1927. By 1930 the north shoreline had stabilized near the end of the short north jetty while the south shore line slowly receded. In 1931 the McCormick sea wall was completed along the original shore line starting at an existing bulkhead 900 feet south of the inlet and extending southward some 2200 feet with a group of 8 groins extending seaward.

The groins did not accrete sand as expected and in 1937 a small fixed dredge was mounted on the end of the north jetty discharging just south of the south jetty. During 1937/41 this 65 HP unit with a 6" pump transferred an average of 50,000 cu yds of sand per year. The rate was accurately measured by filling a crib at the discharge. This rate not only supplied the normal along shore drift but filled the shore line to nearly the top of the 14 foot MSL sea wall and broadened the beach beyond. This obviously was an amount greatly in excess of the along shore drift losses. By this time an ebb tidal shoal had formed transferring the main drift around the inlet to a normal off shore path some 3 or 4 thousand feet south of the inlet.

During the war 1942/4 the pump did not operate and again erosion occurred south of the inlet some 4000 feet. At the end of this period about 30 % of the fill remained, this equates to a beach drift loss rate of 26,923 cu yds /yr. A number of unknown variables such as direct loss due to the inlet, ebb tidal shoal formation, increased loss because of a wider than normal beach in 1941 and certainly poor data will somewhat alter this result but it is apparent the beach drift is a small part of the south drift, occurring 50 to 150 feet off shore, which must have been in excess of 200,000 cu yds/yr in this period of abundant sand.

Although it had been agreed to operate the dredge only to fill the groin field it was continued because of a threatened law suit and because it prevented some sand passing into the inlet around the end of the north jetty as well as supplying sand for an expanding south shore line. The system was measured at 170 cu yds/hr peak and averaged about 130 cu yds/hr.

In July 1947 a new sand pump installation was completed with a 250 HP engine and 8" pump and discharge line. The system could produce a peak of 240 cu yds/hr and averaged about 175 cu yds/hr. In January 1952 the plant was rebuilt with a 300 HP engine. The peak transfer was measured at 270 cu yds/hr but average operation was 185 cu yds/hr. In 1967 a completely new plant was installed with a 400 HP engine and a 10" Georgia Iron Works pump and 10" discharge line. This system while larger in every way had a considerably lower pipeline velocity and generally produced 150 to 165 cu yds/hr in average operation. It was equipped with an atomic production monitor which closely tracked measurements made by velocity determination and percent of sand in the discharge line.

Pumping gradually increased to 105,000 cu yds/yr by 1962 and peaked at 206,600 cu yds in 1963 and together with 145,000 cu yds from Lake Worth the south shore line was built out 295 feet from the McCormick sea wall. Exhibit 2. Soon after an apartment house was constructed some 65 feet eastward over the original sea wall, while north of the inlet two houses and several auxiliary structures gradually were undermined and fell into the ocean in 1963. The pump caused a recession of 55 feet at the north jetty, a maximum of 75 feet about 4000 ft north and 65 ft 14,000

ft north at the Manalapan town limits continuing for a considerable distance further north. In 1965 the north jetty was extended 335 feet eastward but the sand pump effective pumping area was only moved 60 feet eastward.

Sand only drifts when raised by water turbulence and moved by current flow. At the vicinity of the inlet the current necessarily must pass around the jetty end some 235 ft east of the sand pump location where little or no drift occurs. Thus the pump can not access the normal drift and simply digs a deep hole and the shore line collapses into the hole. A sand pump cannot skim the surface to pick up approaching drift, it is therefore necessary to provide a weir so the drifting sand can fall into a basin where the pump can operate well submerged. When the sand pumped exceeds the small along shore drift at any moment, shore line destruction results.

Another serious problem for the area is caused by the deep Lake Worth Inlet to the north where there is essentially no natural sand by passing. Here a sand pump with a long deeply submerged discharge line has operated off and on, and while variously estimated at 150, 175 and 200 cu yds per hour the amount verified by an atomic production monitor showed from 20 to 30 cu yds/hr which was consistent with discharge measurements conducted by Manalapan engineers.

While essentially the full southerly littoral drift passes around the end of the SLWI jetties it does not return to the shore line via the transfer bar for a distance of some 4000 to 5000 feet south of the inlet. During flood tide a substantial portion of the drift goes in the inlet, part of which settles in the protected sand trap, a part enters and shoals the intercoastal canal and surrounding area the rest is swept out during ebb tide but joins that carried south by the transfer bar so that the first 4000 feet south of the inlet will be naturally deficient in littoral drift.

Repeated renourishment of this area has occurred many times in the recent past in 1961, 62, 63, 65, 67, 68, 69, 73 and most recently in 1989, about a thousand feet was renourished with 34,000 cu. ft. of sand only to be all lost in 6 months despite sand pump operation. Renourishment over the years from the flood shoal has amounted to 510,000 cu yds while pumping sand from the Manalapan beach has added 3,870,300. Clearly a beach here, in the inlet shadow, built out into the ocean can not be maintained without works to correct the extreme losses. The present sand pump is some 300 feet west of the principal path of the major natural sand transfer around the end of the north jetty where as much sand as possible should be recovered and shifted from the transfer bar to the immediate south beach.

While the long North jetty at the inlet has backed up sand some 4000 feet to the north in past 65 years, heavy recession has occurred from that point north mandating the investment of some \$6,300,000 (1994 \$) in sea walls to protect structures that were originally built more than 100 feet west of the shore line. This loss attributed to the sand pump operation was confirmed by an in-depth computer model study by the US Corps of Army Engineers in a similar proposed sand pump installation., in which it was determined that a sand pump would unacceptably damage the beach to the north. (Exh.3) Another serious loss in Manalapan occurs during the approximately 30% of the time of northerly drift when the north curved jetty and short south jetty causes the drift to be directed into the inlet during flood tide.